

REMARKS

The present application is a continuation of U.S. Patent No. 09/629,124, filed July 31, 2000. Claims 1-18, as filed in the present application, are the same as claims 1-18 of the parent application. In this preliminary amendment, Applicants have cancelled claims 3 and 4 (which were allowed in the parent application). Also, Applicants have added new claims 19-31. New claims 19-31 are supported by the original specification on pages 2-14. No new matter has been entered.

Rejection under 35 U.S.C. § 103(a) in the Parent Application

In the Parent Application (U.S. Patent No. 09/629,124), claims 1-2 and 5-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,363,404 to Dalal et al. (hereinafter "Dalal") in view of U.S. Patent No. 6,362,817 to Powers et al. (hereinafter "Powers"). Office Action of U.S. Patent No. 09/629,124, dated June 18, 2003.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. *See* M.P.E.P. § 2143. Applicants submit that the combination of Dalal and Powers does not satisfy these criteria.

Claim 1 recites:

A collaborative graphical viewing systems, comprising:
a markup module which allows graphical markup items to be created and associated with a camera position, said markup module comprising a store utility which stores said created graphical markup items and associated camera position in persistent storage.

Claim 7 recites:

A method for maintaining persistence of graphical markup items in a collaborative graphics environment, comprising:
associating graphical markup items created by a user to a camera position, said camera position corresponding to a view of a model loaded into a viewing area; and

storing positioning information describing said camera position and said associated graphical markup items in persistent storage.

Claim 13 recites:

A computer readable storage medium tangibly embodying program instructions implementing a method for maintaining persistence of graphical markup items in a collaborative graphics environment, the method comprising the steps of:

associating graphical markup items created by a user to a camera position, said camera position corresponding to a view of a model loaded into a viewing area; and storing positioning information describing said camera position and said associated graphical markup items in persistent storage.

The Examiner has appeared to assert that Dalal and Powers disclose rendering three dimensional models and, hence, suggest a “camera position.” However, the mere fact that Dalal and/or Powers disclose rendering a three dimensional model according to a “viewpoint” or “camera position” does not address the limitations of these claims. Specifically, claims 1, 7, and 13 recite a functional relationship between graphical markup items and the camera position. There is no such functional relationship between graphical markup items in these references.

Dalal discloses a three dimensional model where markup documents are applied as a texture to the model. For example, Dalal discloses that three dimensional objects (as defined using the Virtual Reality Modeling Language (VRML)) can be rendered during browsing of hyperlinked content. *See* col. 1, lines 66-15. The hyperlinked content is displayed on predefined surfaces of the three dimensional objects using “texture mapping” techniques. Specifically, when a particular surface of a three dimensional object is visible, the hyperlinked content is displayed on the surface. A “viewpoint” is employed according to standard rendering of the three dimensional objects. That is, the relative position of the viewer and the object are used to adjust the two-dimensional rendering of the object (and the mapping hyperlinked content) to give the appearance of three dimensionality. *See* col. 1, lines 22-35. Thus, Dalal discloses storing the hyperlinked content in association with a surface of a three dimensional object. There is no basis in Dalal to conclude that a camera position is stored in association with markup graphical items.

Powers merely discloses rendering a three dimensional environment where “pop-up” elements are presented in relation to the “closeness” of the user to a particular object. *See*

col. 13, lines 35-45. However, defining a closeness parameter to control presentation of a pop-element does not teach or suggest associating a camera position with markup graphical elements. Specifically, a camera position includes the angular relationship between the three dimensional model being rendered and the viewpoint. *See* FIGURE 1 of the present application showing selectable camera position's of "frontface" and "sideview." Powers does not disclose such a relationship. The "pop-up" functionality of Powers appears to occur irrespective of the angular relationship of the viewpoint to the respective block.

Accordingly, the cited art (either alone or in combination) does not teach or suggest each and every limitation of claims 1, 7, and 13. Claims 2, 5, 6, 8-12, and 14-18 respectively depend from base claims 1, 7, and 13 and, hence, inherit all limitations of their base claim. Accordingly, claims 1, 2, and 5-18 are allowable.

New Claims

Claim 19 recites, in part:

a computer aided design (CAD) engine for rendering views of a three dimensional model of an object under design according to a camera position that defines a viewer's perspective relative to said object in three dimensions; and

a collaboration module for creating a user defined annotation of said three dimensional model to be displayed for a single predefined camera position, wherein said collaboration module stores said user defined annotation and said single predefined camera position such that, when said three dimensional model is subsequently viewed according to said single predefined camera position, said user defined annotation is displayed.

Claim 25 recites, in part:

generating a first view of a three dimensional model by a computer aided design (CAD) application for display according to a predefined camera position;
receiving an annotation of said three dimensional model from a user;
storing said received annotation and said predefined camera position;
receiving a request to display of a second view of said three dimensional model according to a requested camera position;

generating said second view of said three dimensional model by said CAD application for display according to said requested camera position; and
only when said requested camera position matches said predefined camera position, displaying said annotation.

For the reasons discussed above with respect to the rejection under 35 U.S.C. § 103(a) in the parent application, Applicants submit that claims 19 and 25 are patentable. Claims 20-24 and 26-31 respective depend from base claims 19 and 25 and, hence, are also patentable.

Conclusion

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-2025, under Order No. 10003778-3 from which the undersigned is authorized to draw.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as Express Mail, Airbill No. EV482736930US in an envelope addressed to: MS Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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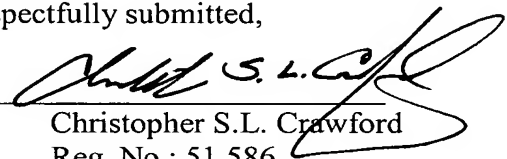
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Respectfully submitted,

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